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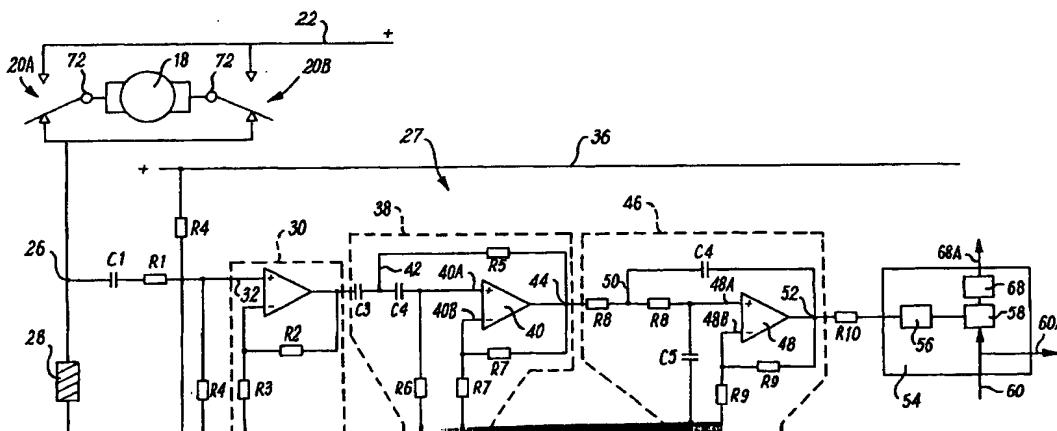
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- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
9 December 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONTROL AND MONITORING ARRANGEMENTS FOR AN APERTURE CLOSURE MEMBER



(57) Abstract: Current through a motor (18) is sensed at (26) to create a voltage which is amplified at (30). The amplifier (30) is followed by a high pass filter (38) and a low pass filter (46). This recovers commutator pulses from the motor current, rejecting mains ripple and higher frequency noise. Commutator pulses are counted at (58). Other arrangements could be used for injecting pulses into the motor supply, for counting at a remote position. Various techniques are described for controlling the motor in accordance with the result of counting.

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INTERNATIONAL SEARCH REPORT

PCT/GB2004/001216

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E05F15/00 G01P3/44 H02P7/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H02P E05F G01P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^a	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 0132, no. 77 (E-778), 26 June 1989 (1989-06-26) & JP 1 064581 A (HIOKI DENKI KK), 10 March 1989 (1989-03-10) abstract ----- US 5 132 602 A (HARPER MICHAEL D ET AL) 21 July 1992 (1992-07-21) column 5, line 4 - line 12 column 5, line 60 - column 6, line 18 column 6, line 41 - line 46 figure 3 -----	1,4-10, 15-20
X		1,4-10, 15-20

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the Invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

20 July 2004

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13.10.2004

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INTERNATIONAL SEARCH REPORT

PCT/GB2004/001216

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 2, 3, 11, 13, 14, 21, 25, 30, 32, 33, 36, 42, 54, 55 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1, 4-10, 12, 15-20

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1,4-10,12,15-20

Dc motor current monitoring arrangement and method for detecting the motor position

2. claims: 22-24,26-29

Monitoring arrangement for injecting a pulse train into the motor supply

3. claims: 31,34,35,37-41,43-53

Aperture closure member control arrangement and method of controlling an aperture closure member

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 2,3,11,13,14,21,25,30,32,33,36,42,54,55

The cited claims don't fullfill the requirements of Art.6 PCT. The reasons therefore are the following :

claims 11,21,30,42,54,55 : the cited claims don't include any technical feature so that it is not possible to define the intended scope of protection. A meaningfull search is not possible.

claim 2,3,13,14 : claim 2 defines the monitoring arrangement by its relationship to the DC motor when the arrangement is used. A first unclarity raises therefore as to the category of claim 2. Furthermore, the pulses are produced by the motor which is not part of the intended scope of protection of claim 1 (claim 1 claims a monitoring arrangement). Therefore, a second unclarity raises with respect to the intended scope of protection. The same objection applies to claim 3, and corresponding claims 13 and 14.

Claim 25 : same objection as for claims 2,3,13,14. The "item" is not part of the intended scope of protection of claim 22, but the technical feature defined by claim 25 only refers to the "item".

Claims 32,33,36 : neither the sensor (claim 32), nor the DC motor (claim 33), nor the "arrangement in accordance with any of claims 1 to 11 or 22 to 30) are part of the intended scope of protection of claim 31. Therefore claims 32,33,36 are not defining technical features of the arrangement defined by claim 31. The intended claim of protection is unclear.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

GB2004/001216

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
JP 1064581	A	10-03-1989	JP JP	2110236 C 8004389 B		21-11-1996 17-01-1996
US 5132602	A	21-07-1992	AU DE JP WO	8665591 A 4192362 T0 5502963 T 9206420 A1		28-04-1992 17-02-1994 20-05-1993 16-04-1992